

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (previously presented) A golf ball comprising:

a one-piece core made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

a heavy weight filler having a specific gravity equal to or greater than about 5.6, wherein the heavy weight filler comprises no more than about 1.95% volume of the core and, the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof; and,

a cover layer disposed upon the core.

Claim 2. (previously presented) The golf ball of claim 1 wherein the core produced with the heavy weight filler has a PGA compression lower than 95.7 and a coefficient of restitution higher than .695.

Claim 3. (previously presented) A three-piece wound golf ball comprising:

a one-piece center made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

a heavy weight filler having a specific gravity of at least about 5.6, wherein the heavy weight filler comprises no more than about 1.95% volume of the center, and the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof;

a thread winding layer disposed upon the core wherein the thread layer comprises rubber; and,

a cover layer disposed upon the thread winding layer.

Claim 4. (previously presented) The golf ball of claim 3 wherein the center produced with the heavy weight filler has a PGA compression lower than 95.7 and a coefficient of restitution higher than .695.

Claim 5. (previously presented) The golf ball of claim 1 wherein the heavy weight filler is selected from the group consisting of bismuth, bismuth oxide, cobalt, iron, steel, tin, chromium, bismuth subcarbonate, ferrous oxide and mixtures thereof.

Claim 6. (previously presented) The golf ball of claim 1 wherein the heavy weight filler is selected from the group consisting of iron, steel, tin, chromium, ferrous oxide and mixtures thereof.

Claim 7. (previously presented) A method of making a golf ball center comprising the steps of:

selecting a heavy weight filler having a specific gravity of at least about 5.6;

mixing the filler with a polybutadiene rubber, a rubber vulcanizing ingredient and core regrind, wherein the

heavy weight filler comprises no more than about 1.95%
volume of the center;

producing a plug;

curing the plug in a mold to form the center, wherein
the center formed from the plug has a PGA compression
lower than 89.3 and a coefficient of restitution
higher than .697.

Claim 8. (previously presented) The golf ball of claim
3 wherein the center produced with the heavy weight filler
is selected from the group consisting of bismuth, bismuth
oxide, cobalt, iron, steel, tin, chromium, bismuth
subcarbonate, cupric oxide, barium tungstate, ferrous
oxide, and mixtures thereof.

Claim 9. (previously presented) The golf ball of claim 1
wherein the heavy weight filler is tungsten.

Claim 10. (previously presented) The golf ball of claim
3 wherein the heavy weight filler is tungsten.

Claim 11. (previously presented) The golf ball of claim 3 wherein the one-piece core further comprises a vulcanizing agent.

Claim 12. (previously presented) A golf ball solid center comprising:

a compound wherein the compound comprises polybutadiene rubber having a cis content of 92% or greater; and,

an inorganic filler having a specific gravity equal to or greater than about 5.6, mixed with the compound wherein the inorganic filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof, wherein the heavy weight filler comprises no more than about 1.95% volume of the center.

Claim 13. (previously presented) The golf ball solid center of claim 12 wherein the inorganic filler selected is tungsten.

14. (previously presented) The golf ball solid center of claim 12 further comprising a vulcanizing ingredient.

15. (previously presented) The golf ball solid center of claim 12 further comprising a core regrind mixed with the compound.

16. (previously presented) The golf ball solid center of claim 13 wherein the center has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697.

17. (previously presented) The golf ball solid center of claim 12 wherein the compound further comprises zinc diacrylate.

18. (previously presented) The golf ball of claim 2 wherein the core further comprises core regrind.

19. (previously presented) The golf ball center of claim 12 wherein the compound further comprises zinc oxide.

20. (previously presented) The golf ball center of claim 12 wherein the compound further comprises zinc stearate.

21. (previously presented) The golf ball center of claim 12 wherein the compound further comprises peroxide.

22. (previously presented) The golf ball of claim 1 wherein the core produced with the heavy weight filler has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697.

23. (previously presented) The golf ball of claim 3 wherein the center produced with the heavy weight filler has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697.

24. (previously presented) The golf ball of claim 1 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 103.6.

25. (previously presented) The golf ball of claim 3 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 97.3.

26. (previously presented) The golf ball of claim 1 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 97.3.

27. (previously presented) The golf ball of claim 3 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 103.6.

Claim 28. (previously presented) A golf ball comprising:
a one-piece core wherein the core has a PGA compression lower than 95.7 and a coefficient of restitution higher than .695, and wherein the core is made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

a heavy weight filler having a specific gravity equal to or greater than about 5.6, wherein the heavy weight filler comprises no more than about 1.95% volume of the core;

a cover layer disposed upon the core wherein the golf ball produced with the heavy weight filler results in a PGA compression lower than 103.6.

Claim 29. (previously presented) A three piece wound golf ball comprising:

a one-piece center wherein the center has a PGA compression lower than 95.7 and a coefficient of restitution higher than .695 made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

a heavy weight filler having a specific gravity equal to or greater than about 5.6, wherein the heavy weight filler comprises no more than about 1.95% volume of the center;

a thread winding layer disposed upon the center wherein the thread layer comprises rubber forming a core; and,

a cover layer disposed upon the core wherein the golf ball produced with the heavy weight filler results in a PGA compression lower than 103.6.

Claim 30. (previously presented) The golf ball of claim 28 wherein the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, bismuth

subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof.

Claim 31. (previously presented) The three piece golf ball of claim 29 wherein the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, zinc, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof.
